

## PROBLEM:

The signal  $x(t)$  is formed from the signal  $v(t)$  by AM modulation. Assume that

$$v(t) = -1 + 3 \cos(6t + \pi/4)$$

and that

$$x(t) = v(t) \cos(20t).$$

- Draw the spectrum for  $v(t)$ . Your sketch should be clearly labeled and all complex amplitudes should be indicated.
- Draw the spectrum for  $x(t)$ . Your sketch should be clearly labeled and all complex amplitudes should be clearly indicated.